27th IEEE International Parallel & Distributed Processing Symposium

IPDPS 2013 PhD Forum

Research Projects Selected for Poster Presentation
Tuesday & Wednesday, May 21st & May 22nd

ALGORITHMS

Algorithm/Architecture Codesign of Low Power and High Performance Linear Algebra Compute Fabrics
Ardavan Pedram (University of Texas at Austin, USA)

Energy Efficient Workflow Job Scheduling for Green Cloud
Fei Cao; Michelle Mengxia Zhu (Southern Illinois University Carbondale, USA)

Toward Flexible and Fast Routing Strategies for Dynamic Network Provisioning
Liudong Zuo; Michelle Mengxia Zhu (Southern Illinois University Carbondale, USA)

Discrete Min-Energy Scheduling on Restricted Parallel Processors
Xibo Jin (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China)

LiPS: A Cost-Efficient Data and Task Co-Scheduler for MapReduce
Moussa Ehsan (Stony Brook University, USA)

Identifying High Betweenness Centrality Vertices in Large Noisy Networks
Vladimir Ufimtsev; Sanjukta Bhowmick (University of Nebraska-Omaha, USA)

APPLICATIONS

Efficient Parallel and Distributed Algorithms for GIS Polygonal Overlay Processing
Satish Puri; Sushil K. Prasad (Georgia State University, USA)

HPC System Software for Regular and Irregular Parallel Applications
Alessandro Morari (Barcelona Supercomputing Center, Spain); Mateo Valero (Universidad Politécnica de Cataluña, Spain)

Wire Speed IPv6 Forwarding on Multi-Core Platforms
Thilan Ganegedara; Viktor K. Prasanna (University of Southern California, USA)

A Compression Framework for Multidimensional Scientific Datasets
Tekin Bicer; Gagan Agrawal (The Ohio State University, USA)

ARCHITECTURE

Performance and Power Simulation for Versatile GPGPU Global Memory
Bin Wang; Weikuan Yu (Auburn University, USA)

Exploiting Content Similarity to Improve Memory Performance in Large-Scale High-Performance Computing System
Scott Levy (University of New Mexico, USA)

Designing Hybrid Architectures for Massive-Scale Graph Analysis
David Ediger; David A. Bader (Georgia Institute of Technology, USA)

Reducing the Environmental Impact of Optical Networks
Thilo Schöndienst (University of Massachusetts Dartmouth, USA); Vinod M. Vokkarane (University of Massachusetts Dartmouth & Massachusetts Institute of Technology, USA)

Fine-grained Manipulation of FPGA Configuration for Incremental Design
Wenwei Zha (Virginia Polytechnic Institute and State University, USA)

Applications Acceleration Through Adaptive Hardware Components
Vito Giovanni Castellana; Fabrizio Ferrandi (Politecnico di Milano, Italy)

SOFTWARE

SAGE: Geo-Distributed Streaming Data Analysis in Clouds
Radu Tudoran (ENS Cachan, France)

Towards Dependability Testing of MapReduce Systems
João Eugenio Marynowski (Federal University of Parana, Brazil)

Efficient I/O using Dedicated Cores in Large-Scale HPC Simulations
Matthieu Dorier (ENS Cachan/IRISA, France)

Self-Adaptive Cost-Efficient Consistency Management in the Cloud
Houssem-Eddine Chihoub (Inria Rennes-Bretagne Atlantique, France)

Towards Efficient Mapping, Scheduling, and Execution of HPC Applications on Platforms in Cloud
Abhishek Gupta; Laxmikant V. Kale (University of Illinois at Urbana-Champaign, USA)

Harnessing Adaptivity Analysis for the Automatic Design of Efficient Embedded and HPC Systems
Silvia Lovergine; Fabrizio Ferrandi (Politecnico di Milano, Italy)

Adaptive Power and Resource Management Techniques for Multi-threaded Workloads
Can Hankendi; Ayse Coskun (Boston University, USA)